



Food and Drug Administration  
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March 5, 2015

Galil Medical Incorporated  
Ms. Amy McKinney  
Vice President, Global Regulatory Affairs & Quality  
6518 Tamarind Sky Lane  
Fulshear, Texas 77441

Re: K143564

Trade/Device Name: Visual-ICE<sup>®</sup> Cryoablation System, Software Revision 1.3.1

Regulation Number: 21 CFR 878.4350

Regulation Name: Cryosurgical unit and accessories

Regulatory Class: Class II

Product Code: GEH

Dated: February 10, 2015

Received: February 11, 2015

Dear Ms. McKinney:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Jennifer R. Stevenson -S

For Binita S. Ashar, M.D., M.B.A., F.A.C.S.  
Director  
Division of Surgical Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)

K143564

Device Name

Visual-ICE Cryoablation System, Software Revision 1.3.1

### Indications for Use (Describe)

The Visual-ICE Cryoablation System is indicated for use as a cryosurgical tool in the fields of general surgery, dermatology, neurology (including cryoanalgesia), thoracic surgery, ENT, gynecology, oncology, proctology, and urology. This system is designed to destroy tissue (including prostate and kidney tissue, liver metastases, tumors, skin lesions) by the application of extremely cold temperatures. The Visual-ICE Cryoablation System has the following specific indications:

- Urology: Ablation of prostate tissue in cases of prostate cancer and Benign Prostate Hyperplasia (BPH)
- Oncology: Ablation of cancerous or malignant tissue and benign tumors, and palliative intervention
- Dermatology: Ablation or freezing of skin cancers and other cutaneous disorders, destruction of warts or lesions, angiomas, sebaceous hyperplasia, basal cell tumors of the eyelid or canthus area, ulcerated basal cell tumors, dermatofibromas, small hemangiomas, mucocele cysts, multiple warts, plantar warts, actinic and seborrheic keratosis, cavernous hemangiomas, peri-anal condylomata, and palliation of tumors of the skin
- Gynecology: Ablation of malignant neoplasia or benign dysplasia of the female genitalia
- General surgery: Palliation of tumors of the rectum, hemorrhoids, anal fissures, pilonidal cysts, and recurrent cancerous lesions, ablation of breast fibroadenomas
- ENT: Palliation of tumors of the oral cavity and ablation of leukoplakia of the mouth
- Thoracic surgery: Ablation of arrhythmic cardiac tissue cancerous lesions
- Proctology: Ablation of benign or malignant growths of the anus or rectum, and hemorrhoids

Type of Use (Select one or both, as applicable)

☒ Prescription Use (Part 21 CFR 801 Subpart D)

☐ Over-The-Counter Use (21 CFR 801 Subpart C)

### CONTINUE ON A SEPARATE PAGE IF NEEDED.

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## Section 5. 510(k) Summary

### 510(k) SUMMARY

A summary of 510(k) safety and effectiveness information in accordance with the requirements of 21 CFR 807.92.

**Submitter:** Galil Medical Inc.  
4364 Round Lake Road W  
Arden Hills, MN 55112  
USA

**Company Contact Person:** Amy E. McKinney  
Vice President, Global Regulatory Affairs & Quality  
Galil Medical Inc.  
Phone: 651-287-5096  
Fax: 651-287-5097  
Email: amy.mckinney@galilmedical.com

**Alternate Contact Person:** Lynne Davies  
Sr. Manager, Global Regulatory Affairs  
Galil Medical Inc.  
Phone: 651-287-5098  
Email: Lynne.davies@galilmedical.com

**Device Name:** Visual-ICE® Cryoablation System, Software Revision 1.3.1  
IceRod 1.5 CX Cryoablation Needle

**Device Classification Name:** Cryosurgical unit and accessories (GEH)  
21 CFR 878.4350

**Predicate Device:** Visual-ICE® Cryoablation System (K113860)  
Visual-ICE® Cryoablation System, Software Revision 1.2.2 (K123865)  
IceRod CX Cryoablation Needle (K121251)

**Date of Preparation:** March 3, 2015

### Device Description:

The Visual-ICE Cryoablation System is a mobile console system intended for cryoablative tissue destruction using a minimally invasive procedure. The system is computer-controlled with a touch screen user interface that allows the user to control and monitor the procedure. The therapy delivered by the system is based on the Joule-Thomson effect displayed by compressed gases. The Visual-ICE System uses high-pressure argon gas that circulates through closed-tip cryoablation needles to induce tissue freezing. Active tissue thawing is achieved by circulating helium gas through the needles or, alternatively, by the use of Galil Medical i-Thaw® technology in which a heating element inside the cryoablation needle can be

energized to cause thawing.

This Special 510(k) is being submitted to modify the software with a variety of changes to enhance usability of the system. The functions of the system that users use to deliver the cryoablation treatment remain unchanged. The table below provides a summary comparison of the changes included in this Special 510(k).

<b>User Interface Changes</b>	<ul style="list-style-type: none"> <li>Added information to be displayed on Big Timers and made timers movable</li> <li>Modified wording on all displayed messages for clarity</li> <li>Minor appearance modifications</li> <li>Minor bug fixes</li> </ul>
<b>Service and Maintenance Changes</b>	<ul style="list-style-type: none"> <li>Minor updates used only by service personnel</li> </ul>
<b>Functional Changes</b>	<ul style="list-style-type: none"> <li>Modified wording for clarity.</li> <li>Removed lockout for procedure at maintenance due and end of life; will display warning upon startup.</li> <li>Allow for user configurable time parameter for displayed low gas message.</li> <li>Removed restriction for programming up to three freeze thaw cycles.</li> <li>Added ability to load and save pre-programmed freeze-thaw cycles.</li> <li>Allow cautery and freeze in any order.</li> <li>Added a 30 second flush after a freeze.</li> <li>Added ability to display internal gas temperature of i-Thaw capable needles.</li> <li>Added gas line flush at start of every procedure</li> <li>Minor bug fixes</li> </ul>

### Intended Use:

The Visual-ICE Cryoablation System is indicated for use as a cryosurgical tool in the fields of general surgery, dermatology, neurology (including cryoanalgesia), thoracic surgery, ENT, gynecology, oncology, proctology, and urology. This system is designed to destroy tissue (including prostate and kidney tissue, liver metastases, tumors, skin lesions) by the application of extremely cold temperatures. The Visual-ICE Cryoablation System has the following specific indications:

- Urology**

Ablation of prostate tissue in cases of prostate cancer and Benign Prostate Hyperplasia (BPH)
- Oncology**

Ablation of cancerous or malignant tissue and benign tumors, and palliative intervention

- 
- **Dermatology**      Ablation or freezing of skin cancers and other cutaneous disorders  
  
Destruction of warts or lesions, angiomas, sebaceous hyperplasia, basal cell tumors of the eyelid or canthus area, ulcerated basal cell tumors, dermatofibromas, small hemangiomas, mucocoele cysts, multiple warts, plantar warts, actinic and seborrheic keratosis, cavernous hemangiomas, peri-anal condylomata, and palliation of tumors of the skin
  - **Gynecology**      Ablation of malignant neoplasia or benign dysplasia of the female genitalia
  - **General surgery**      Palliation of tumors of the rectum, hemorrhoids, anal fissures, pilonidal cysts, and recurrent cancerous lesions, ablation of breast fibroadenomas
  - **ENT**      Palliation of tumors of the oral cavity and ablation of leukoplakia of the mouth
  - **Thoracic surgery**      Ablation of arrhythmic cardiac tissue cancerous lesions
  - **Proctology**      Ablation of benign or malignant growths of the anus or rectum, and hemorrhoids

### **Summary of Performance Data and Substantial Equivalence:**

The Visual-ICE System and software were evaluated in accordance with Galil Medical's risk management plan. No new unacceptable risks were identified based on the changes incorporated into Software Revision 1.3.1. Complete software verification and validation testing was completed on the new software revision. Software Revision 1.3.1 passed all verification and validation testing. No changes were made to the Visual-ICE System hardware.

### **Conclusion:**

The information and data provided in this Special 510(k) establish that the Visual-ICE Cryoablation System Software Revision 1.3.1 is substantially equivalent to the legally marketed predicate device.